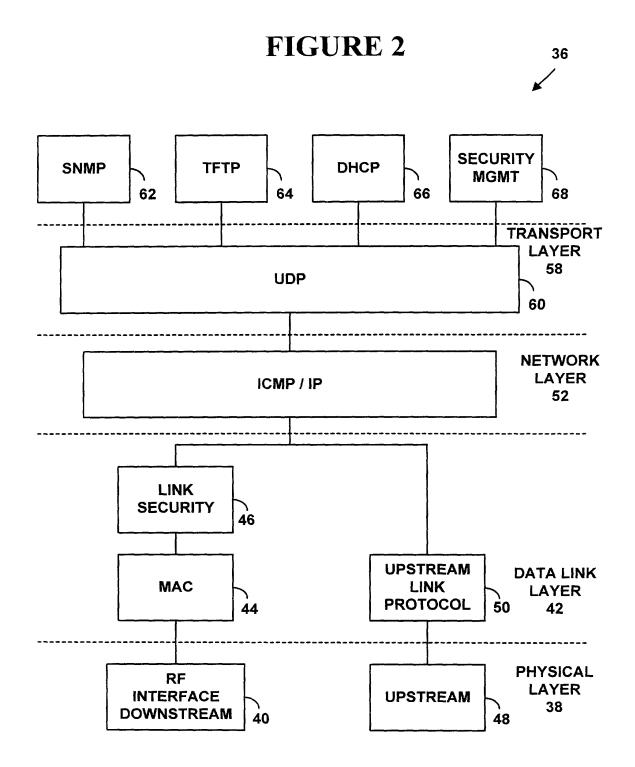
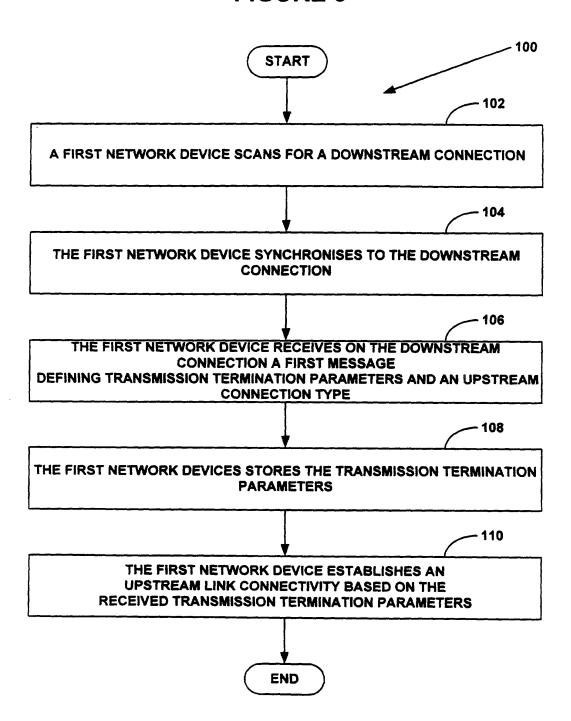
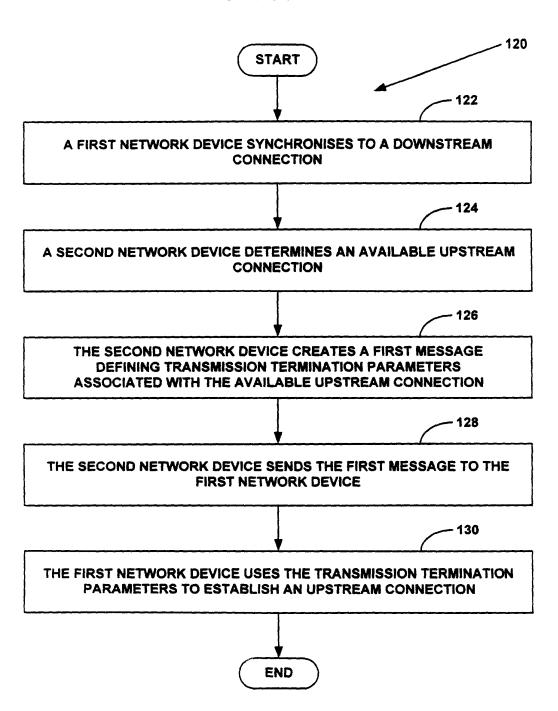


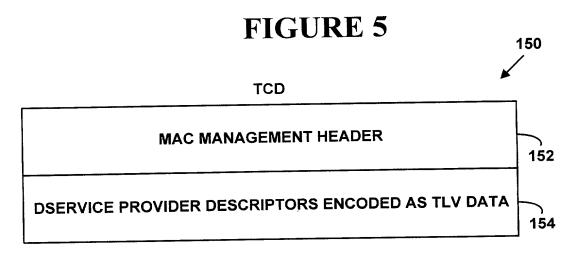
FIGURE 1

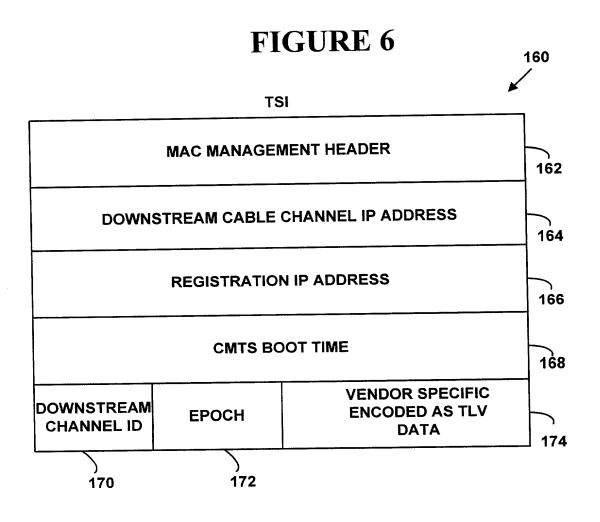
Title: System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor. Arutyunov et al. Docket 99-975 Attorney: Monika Dudek (312 913 0001) pages: 2-25



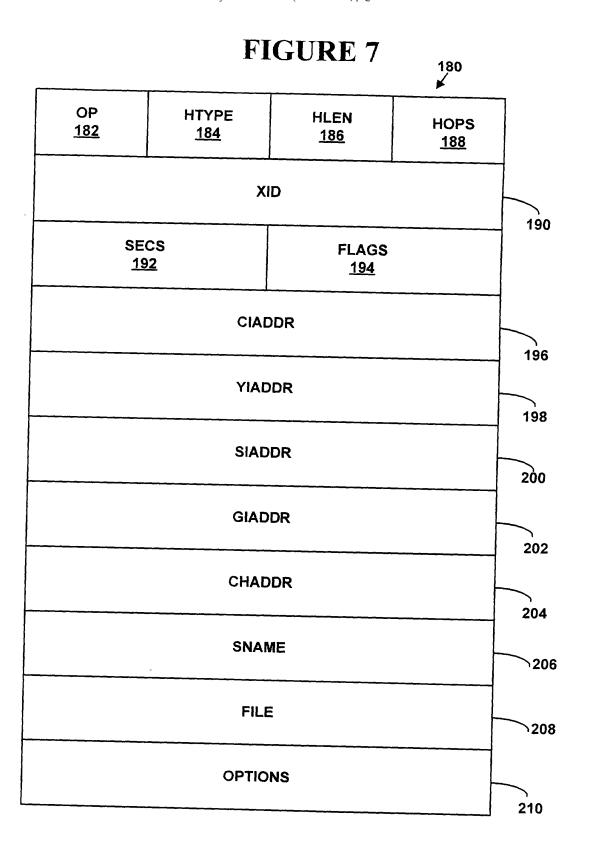




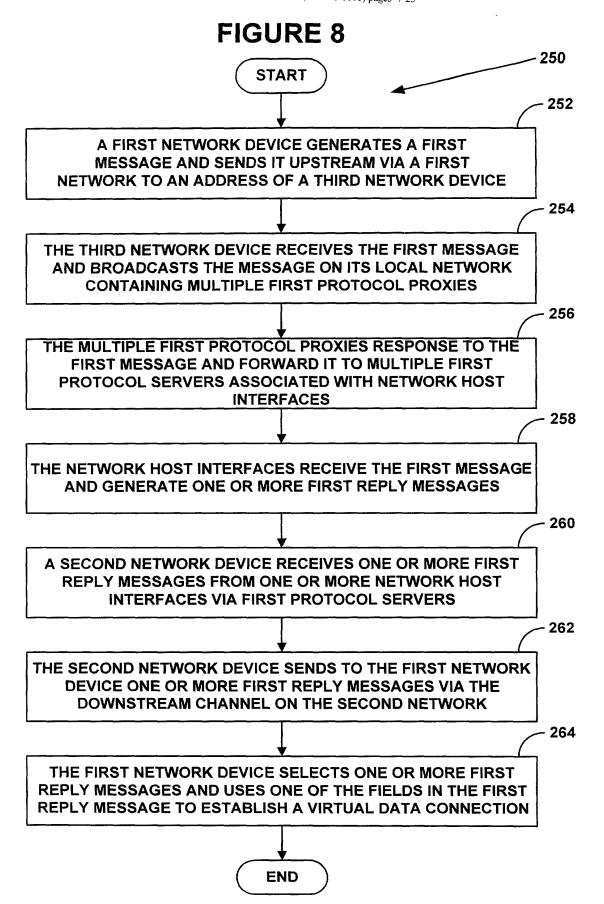


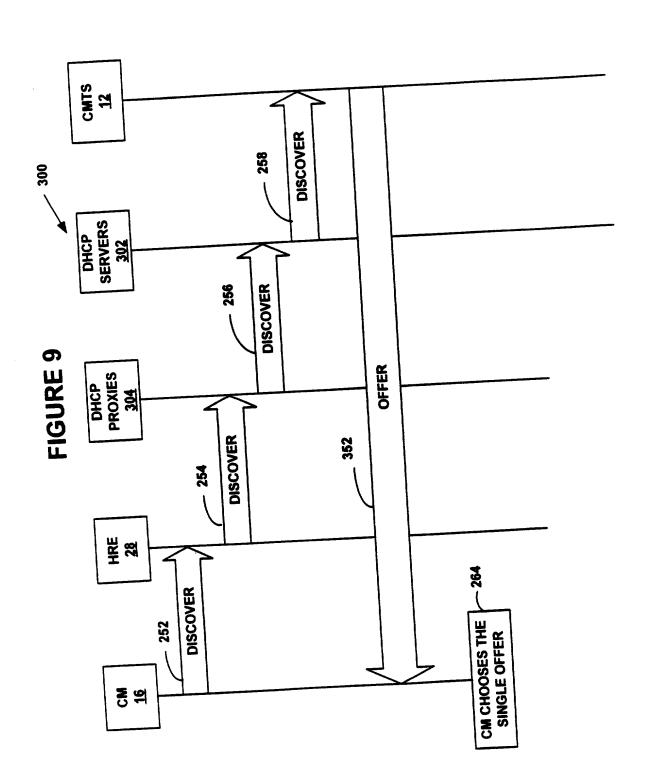


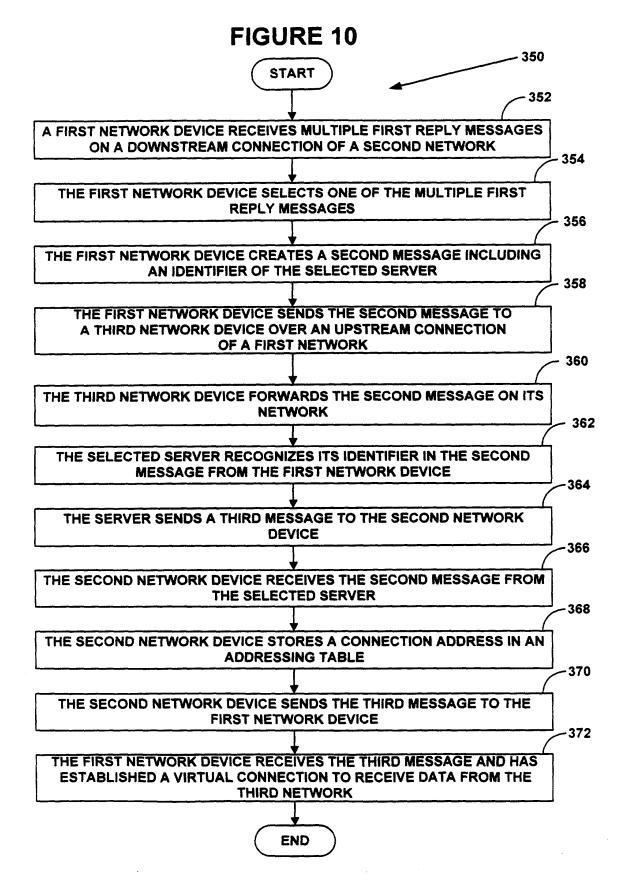
Title. System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor Arutyunov et al. Docket 99-975 Attorney: Monika Dudek (312 913 0001) pages. 6-25

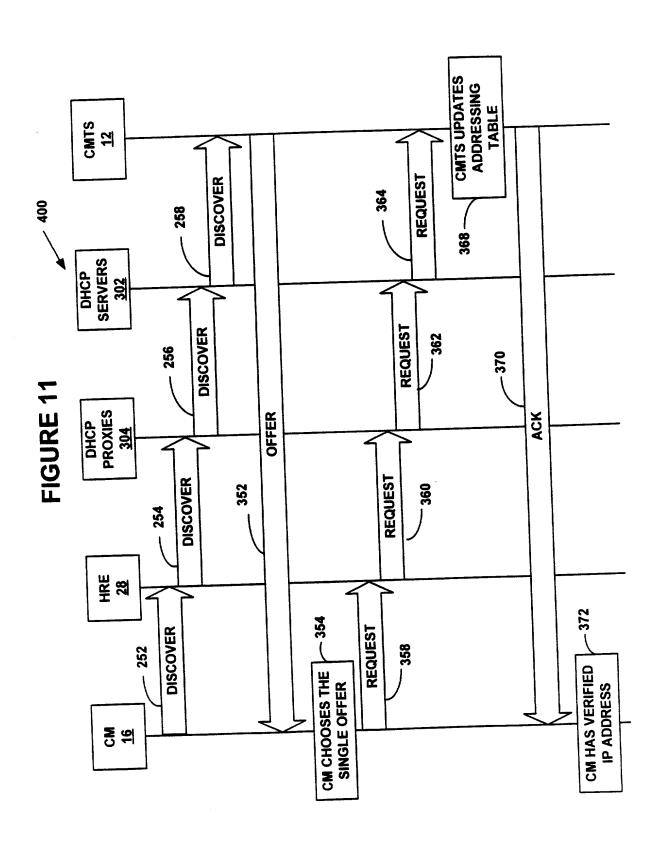


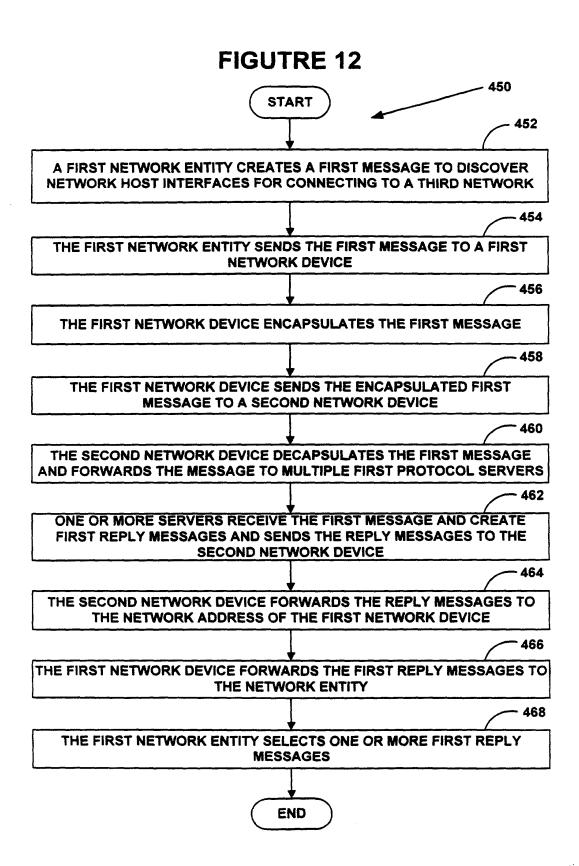
Title System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor Arutyunov et al Docket. 99-975 Attorney Monika Dudek (312 913 0001) pages 7-25

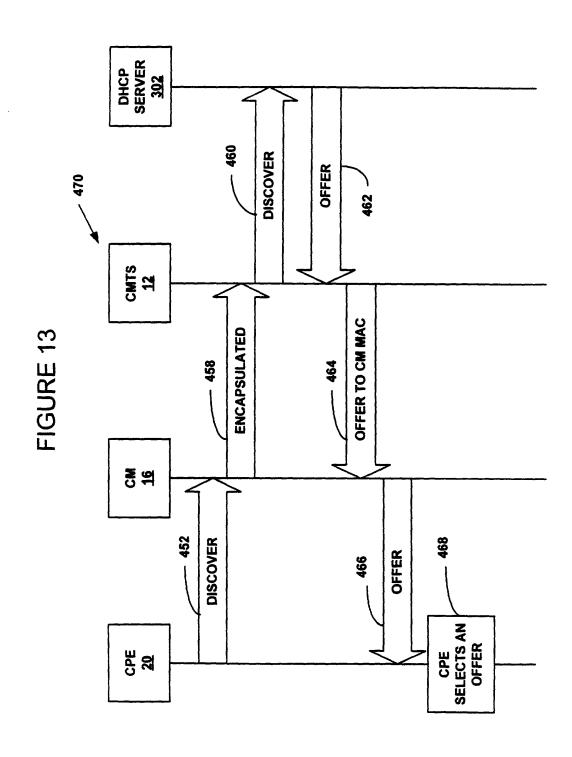


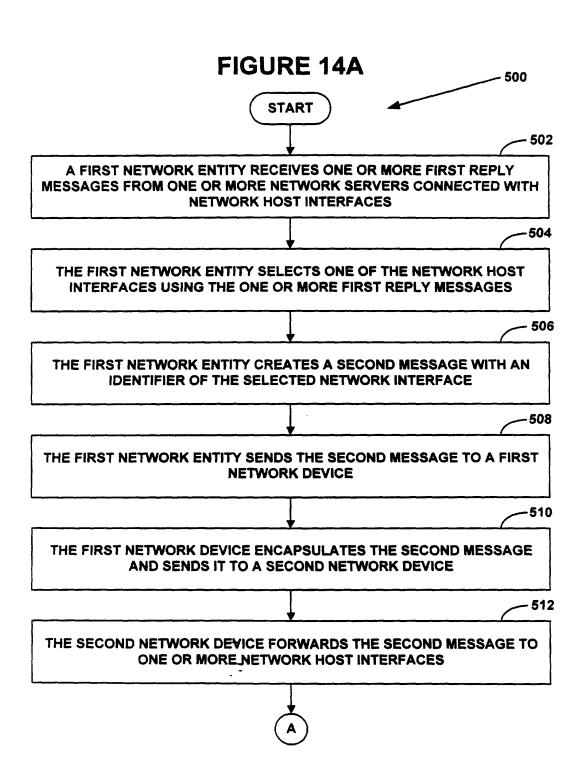






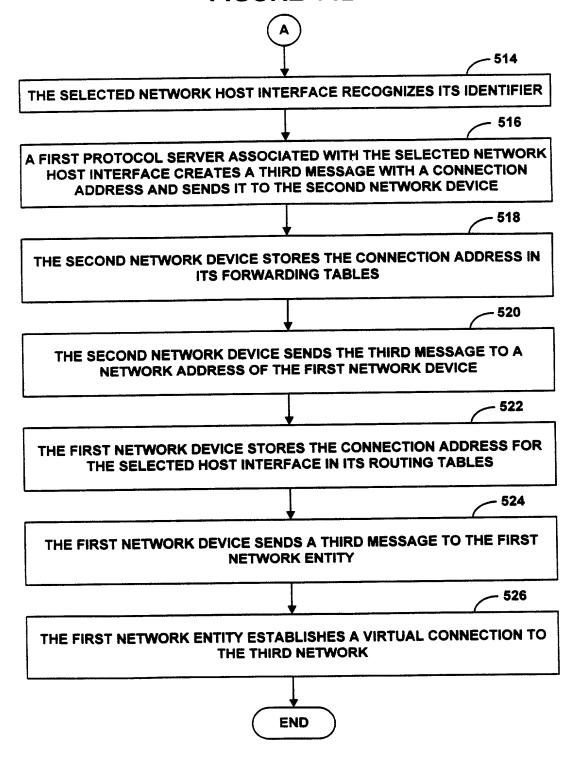


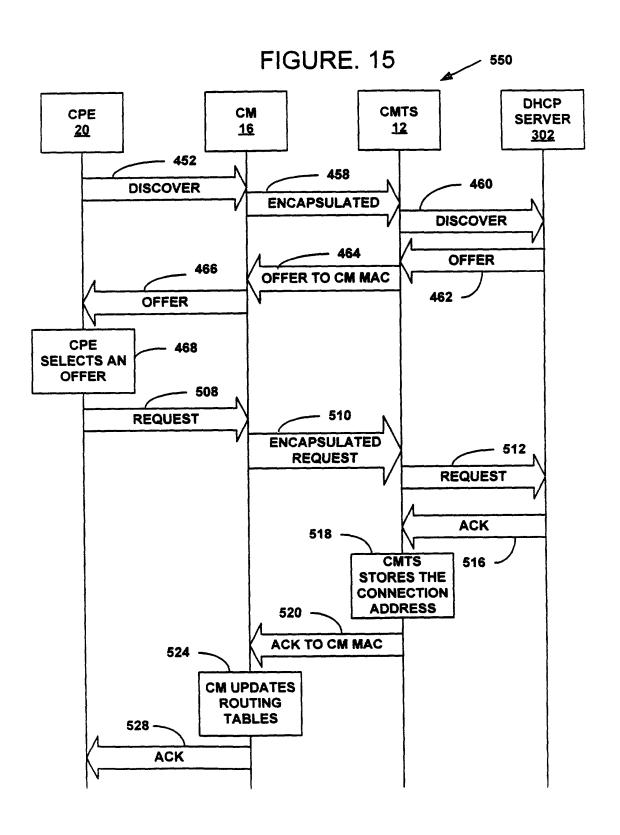


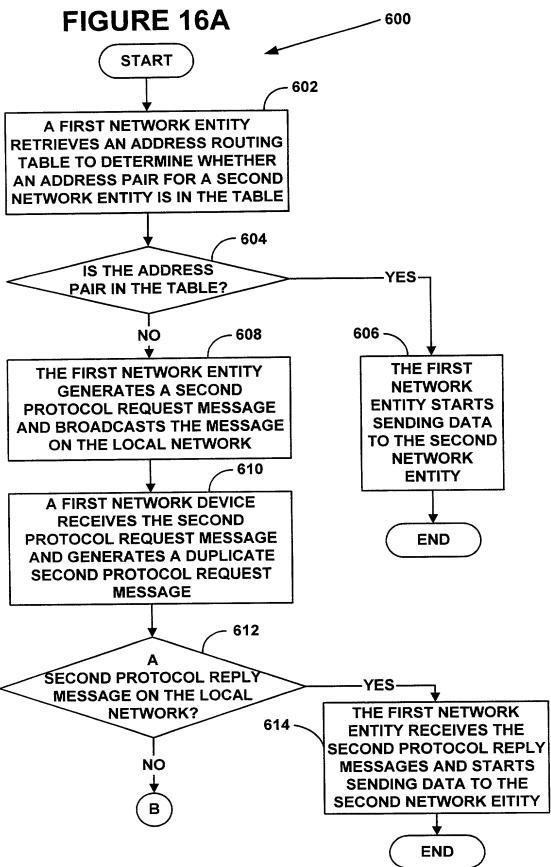


 Title. System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor. Arutyunov et al Docket: 99-975 Attorney Monika Dudek (312 913 0001) pages: 14-25

FIGURE 14B

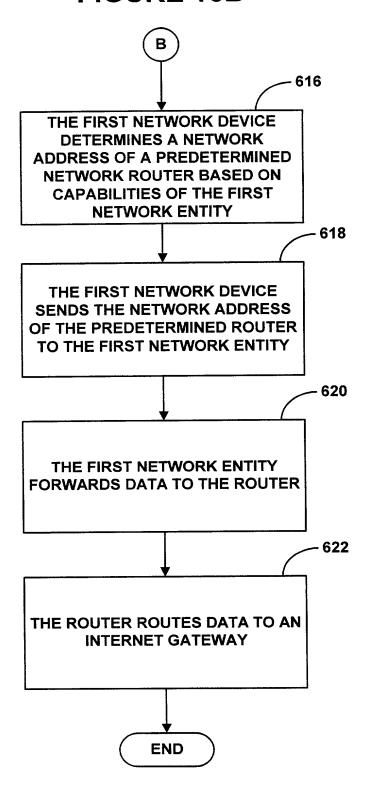




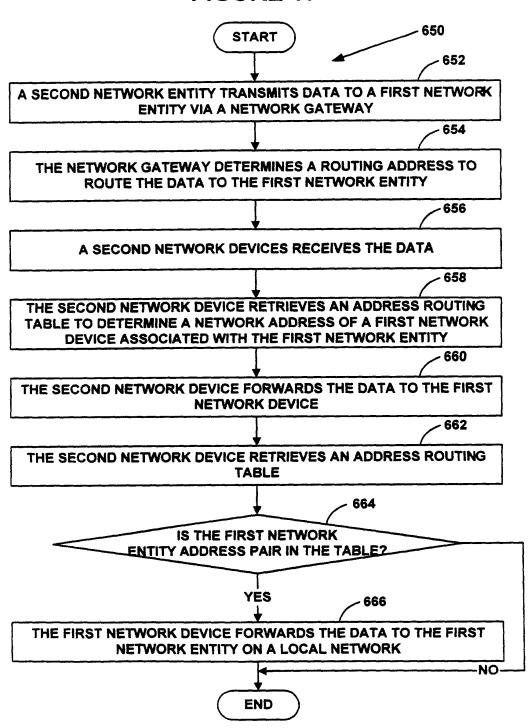


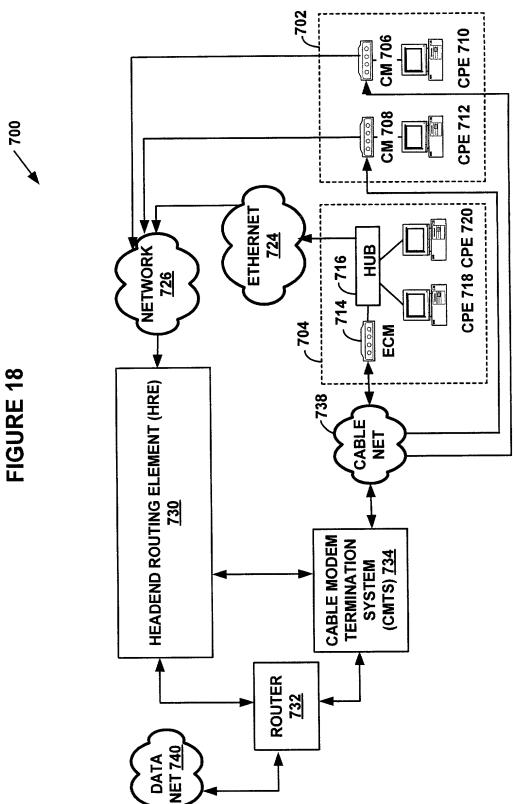
Title. System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Title: System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor Arutyunov et al Docket: 99-975 Attorney Monika Dudek (312 913 0001) pages: 17-25

FIGURE 16B



Title System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor. Arutyunov et al. Docket: 99-975 Attorney Monika Dudek (312 913 0001) pages: 18-25





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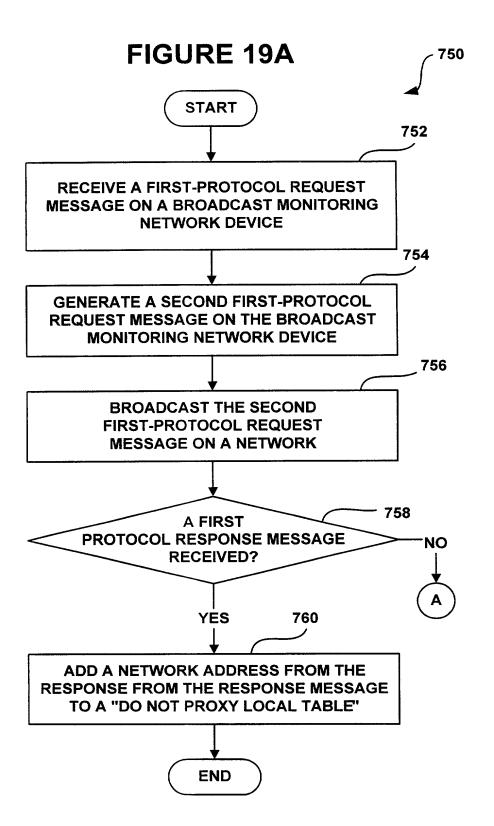
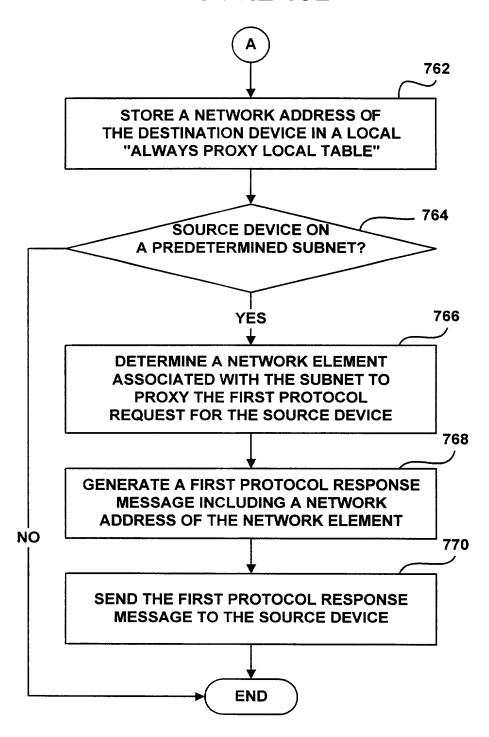


FIGURE 19B



BACKBONE ROUTER/SWITCH MAC ADDRESS = 00-20-AF-67-C4-62 **IP ADDRESS = 157.055.46.154** 802 **HEADEND ROUTING ELEMENT (HRE)** MAC ADDRESS = 00-20-AF-43-B4-5F IP ADDRESS = 208.214.1.20 804 **CMTS** ETHERNET: MAC ADDRESS = 00-50-01-20-77-AA **IP ADDRESS = 208.214.1.1** RF(QAM) MAC ADDRESS = 00-50-01-CC-BB-AA **IP ADDRESS = 10.9.1.2 IP ADDRESS = 208.213.1.1** IP ADDRESS = 208.213.136.1 806 HUB **ECM** MAC ADDRESS = 00-00-86-48-FA-50 **IP ADDRESS = 10.9.1.2** 808 CPE MAC ADDRESS = 00-00-86-01-AF-47 IP ADDRESS = 208.213.136.161

810

-IGURE 21

824	830	832	834	836	838
PROTOCOL TYPE	OPERATION				
HARWARE TYPE 822	PLEN 828	SOURCE MAC	SOURCE IP	DESTINATION MAC	DESTINATION IP
	HLEN 826				

Title System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor Arutyunov et al Docket 99-975 Attorney Monika Dudek (312 913 0001) pages. 24-25

850	DEST MAC ff-ff-ff-ff 862	852	DEST MAC 00-00-86-01-AF-47 870	854	DEST MAC 00-20-AF-67-C4-62 878
	SRC MAC 00-00-86-01-AF-47 860	ESTINATION MAC	SRC MAC 00-20-AF-43-B4-5F 868	THE PACKET	SRC MAC 00-20-AF-43-B4-5F 876
A CPE	DEST IP 149.112.85.162 <u>858</u>	ECM RESPONDS TO ARP FOR DESTINATION MAC	DEST IP 208.213.136.161 866	HEADEND ROUTER FORWARDS THE PACKET	DEST IP 149.112.85.162 <u>874</u>
PC ARP FOR A CPE	SRC IP 208.213.136.161 <u>856</u>	ECM RESPO	SRC IP 149.112.85.162 <u>864</u>	HEADEND RO	SRC IP 208.213.136.161 872
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Title System And Method For Resolving Network Addresses For Network Devices On Distributed Network Subnets Inventor Arutyunov et al Docket 99-975 Attorney Monika Dudek (312 913 0001) pages: 25-25

		7		7	
	DEST MAC <u>908</u> 00-50-01-20-77-AA (CMTS ETHERNET)	930	DEST MAC <u>916</u> 00-00-86-01-AF-47 (CPE)	940	DEST MAC <u>924</u> 00-00-86-01-AF-47 (CPE)
	SRC MAC <u>906</u> 00-20-AF-67-C4-62 (INTERNET GATEWAY)		SRC MAC CMTS MAC INTERFACE ADDRESS		SRC MAC 922 CMTS MAC INTERFACE ADDRESS
PACKET SENT TO THE CPE 810	904 DEST IP 208.213.136.161	TO RF SIDE	912 DEST IP 208.213.136.161	ECM FORWARDS THE PACKET	DEST IP 208.213.136.161
PACKET SEN	SRC IP 149.112.85.162	CMTS SENDS TO RF SIDE	SRC IP 149.112.85.162	ECM FORWAF	SRC IP 149.112.85.162